



Phoenix Metropolitan Region Performance Measurement in Planning

**District 8 TSMO Sub-Regional Operations Forum
July 20, 2016**

MAG Performance Measurement

- MAG Performance Measurement Program (PMP)
- Why is Performance Measurement Important?
- Key Elements
- Example of successful application – DPS co-location pilot project

Why is Performance Measurement important?

- Provides a technical basis; allow analysis and assessment of progress → stated goals and targets.
- Instrumental in:
 - Enhancing planning and programming decision-making processes by enabling MAG to better monitor and evaluate progress toward the achievement of strategic goals.
 - Providing the tools necessary to better understand regional trends in transportation system performance.
 - Providing a factual basis; inform policymakers based on objectives-based, performance driven planning and programming.

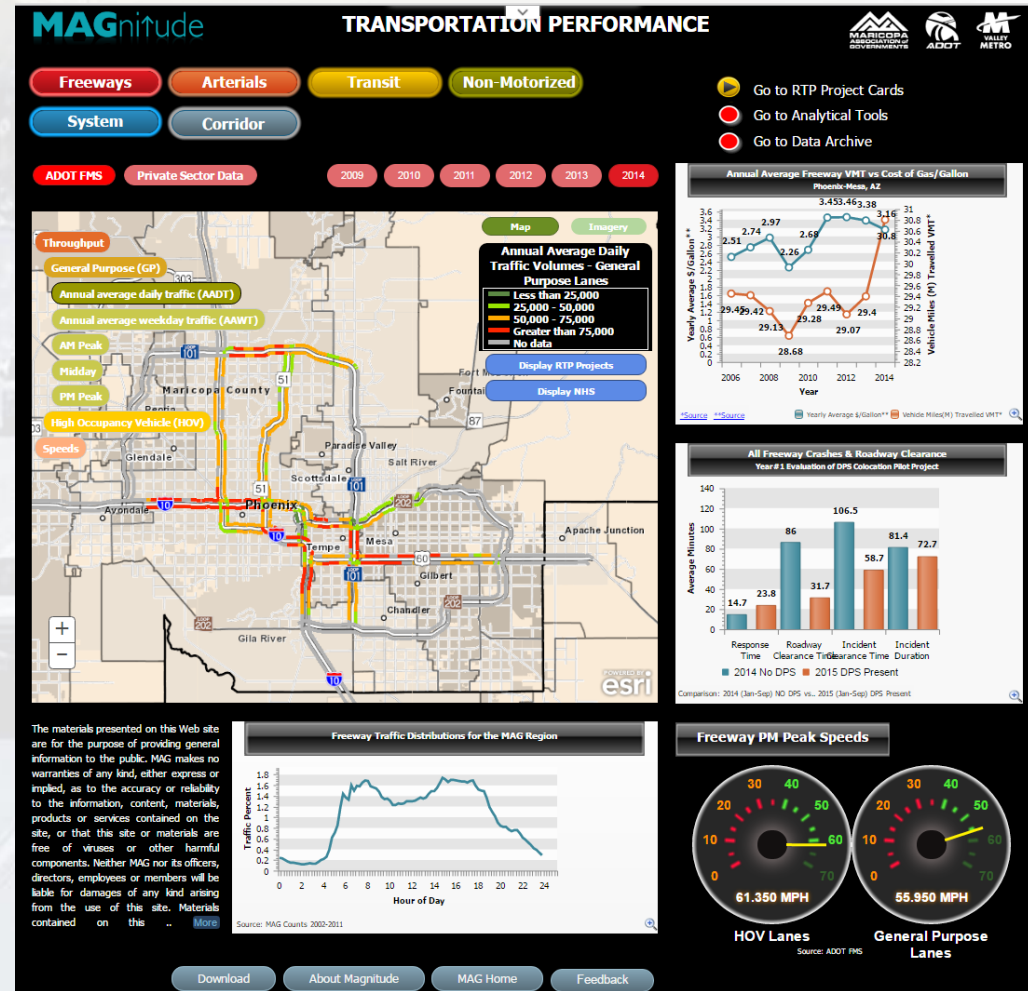
Performance Measurement Key Components

- Identification of Goals and Objectives
- Definition of criteria to advance goals and objectives
- Assess status, quality, accuracy and completeness of data to support measures
- Define geographic areas - policy and technical level
- Identify: metrics, thresholds, measures and targets - technical level (via ITS Committee for SM&O)
- Report at various levels to reach multiple audiences and meet requirements Federal, State, Regional

MAG Performance Measurement in Planning

- (MAG) first developed a Performance Measurement Program (PMP) in 2009
- Collect, analyze and document performance status of surface transportation
- MAG initiated the development of interactive web-based tools in 2012 (MAGnitude)
 - Further enhance the communication and dissemination of regional system performance, new data sources integrated into PMP, meet FAST Act requirements
 - Allows policymakers, technical users and the public, easy access to performance data and visualization.
- MAG ITS Committee – Development of the MAG ITS Strategic Plan 2012
 - Outlined regional goals and project type priorities; included in RTP
 - Projects programmed for Systems Management and Operations input to PMP
 - Coordination of TIM performance measurement

MAGnitude: <http://performance.azmag.gov/>



Example: Successful Application



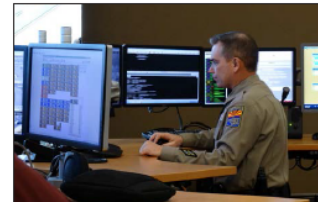
Time Taken to Clear Freeway Crashes Drastically Reduced

Locating DPS Troopers at Traffic Center Pays Off for Motorists

The average time taken to clear a crash site on Maricopa County freeways was reduced by nearly an hour over the past year, helping traffic move more quickly, preventing secondary collisions and potentially saving lives.



The dramatic reduction in clearance times is attributed to a decision one year ago to locate Department of Public Safety (DPS) troopers at the Arizona Department of Transportation (ADOT) Traffic Operations Center (TOC).



DPS Trooper Robb Brown monitors freeway activity at the ADOT Traffic Operations Center.

Placing DPS troopers at the TOC began in late 2014 as a three-year pilot program. MAG and ADOT are jointly funding the project, with buy-in from DPS and the Federal Highway Administration (FHWA).



DPS Director Frank Milstead.

"Despite a 23 percent increase in the number of freeway crashes, the time to clear crashes of all severities was reduced between 48 and 65 percent," said DPS Director Frank Milstead in announcing the one-year results. "While clearing severe crashes took longer than less serious incidents, they were also cleared more quickly than the year before. On average, the time taken to clear all freeway lanes at crash sites has been reduced by nearly an hour."

ADOT Director John Halikowski said the success is a result of increased efficiency.

"The DPS troopers at the TOC have direct communication with troopers in the field. They can jointly determine the resources needed at a specific crash scene," Halikowski said. "This prevents the need for ADOT operators to relay the information to DPS. This means we can mobilize field officers, fire-rescue, ambulances, the appropriate class of tow truck and other resources more quickly. Clearing crash scenes more quickly reduces the risk of secondary crashes, furthering our important goal of public safety."

MAG Chair WJ. "Jim" Lane, mayor of Scottsdale, noted that the reduction in traffic delay not only saves lives but saves money in terms of potential lost productivity. "MAG estimates that the region has saved \$165 million in lost productivity over the first year of the pilot project," said Mayor Lane. "These findings

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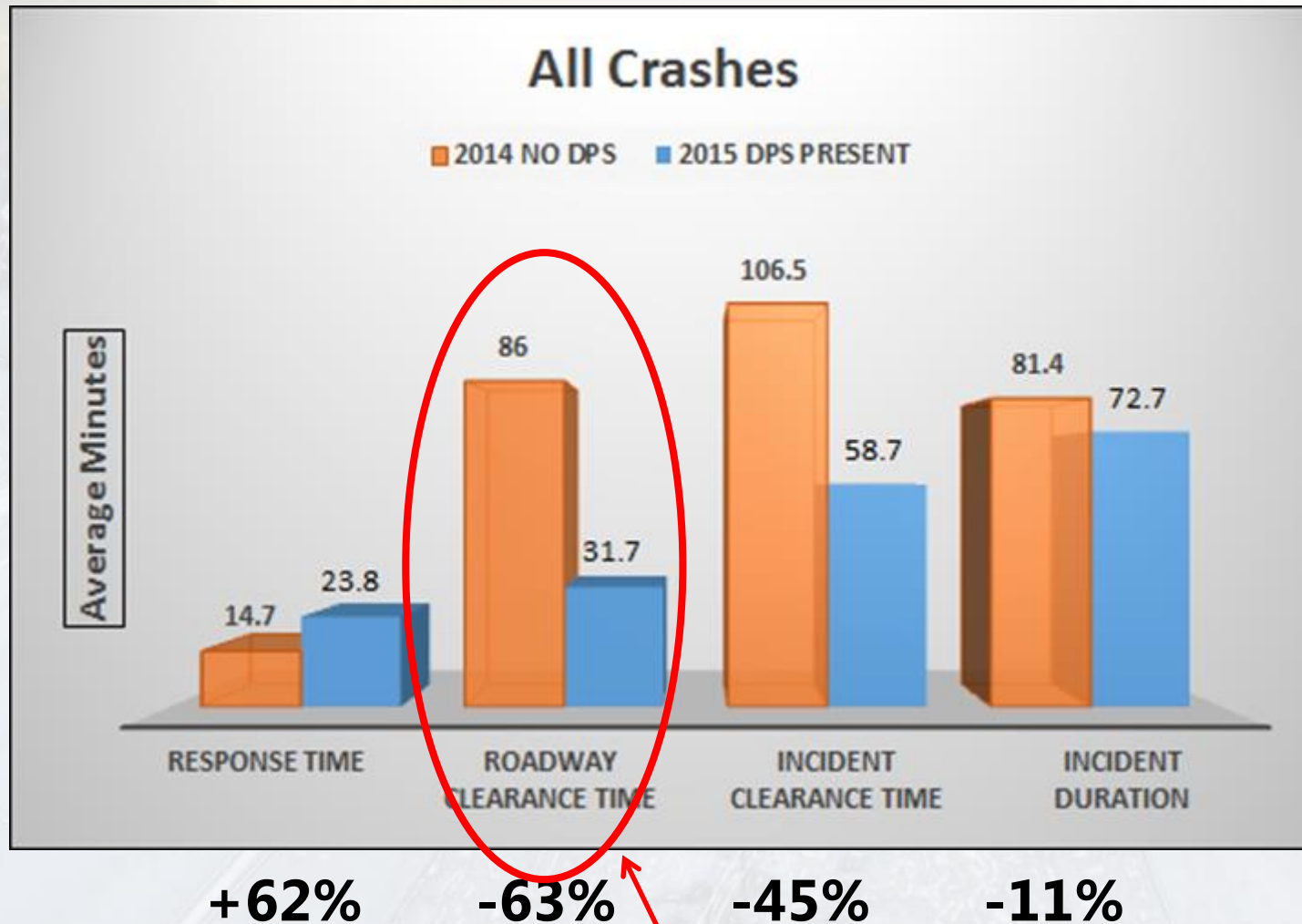
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Evaluation Study – DPS Officer Co-location Pilot

- ADOT & MAG funded 3-Yr Pilot Project
 - Co-location of DPS troopers at the TOC started in October 2014
 - 3-months of staff training
 - The program fully operational in January 2015
- All crash clearance data gathered using the DPS electronic reporting system - TraCS
- Evaluation compared 9-months of BEFORE Vs AFTER performance data:
- Regional Traffic Simulation Model -DynusT
 - Compared total traffic delay experienced by travelers in 2014 & 2015
 - Used observed crash numbers & actual time taken to clear crashes

All Freeway Crashes



Comparison:
2014(Jan–Sept)
NO DPS
Vs
2015 (Jan–Sept)
DPS Present

Reduced by 54 minutes

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